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AN
ACCOUNT *K*
OF THE
MODE AND EXPENCE
OF
CULTIVATING
MOSS *and* PEAT LANDS.

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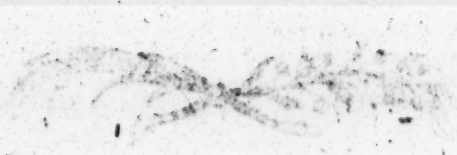


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ACCOUNT
OF THE
MODE AND EXPENSE
OF
OBTAINING
MOSS AND PEAT LANDS



AN
ACCOUNT

*Of the Mode and Expence of cultivating
MOSS and PEAT LANDS.*

FOR THE EDINBURGH ADVERTISER.

S I R,

AT a period when the necessity of increasing the Cultivation of Waste and Barren Grounds, and thereby the subsistence of the People, is universally felt, you cannot do a greater service to your country, than publish the following interesting paper.

AGRICOLA.

IMPROVEMENT OF MOSS.

The **HIGHLAND SOCIETY**, at a late Meeting, having voted a **GOLD MEDAL** of **TEN GUINEAS** value, to be presented to **Mr. SMITH**, of **SWENRIDGEMUIR, Ayrshire**, for his extensive **IMPROVEMENT** of a large tract of **Moss** on his property, by which a large quantity of ground which formerly produced nothing, has been brought into Tillage, and so

much clear gain added to the PUBLIC STOCK, we think it will be acceptable to such of our AGRICULTURAL READERS as are unacquainted with Mr. SMITH's method of IMPROVING MOSS, to publish an account of it.

In many places of Scotland, the cultivation and improvement of Moss has been lately adopted with great success to the proprietors, and advantage to the public—Besides the extensive improvement made by Mr. SMITH, an experiment to a considerable extent has been also made on the Estate of *Pottieshill*, near *Bathgate*; and an excellent crop produced, of Oats, Barley, Lint, Pease, and Potatoes, *where nothing grew before.*

Account of the mode which has been successfully practised by Mr. SMITH, of Swinridgemuir, for the improvement of his MOSS LANDS, between Beith and Irvine, in the County of Ayr.

MOSSES are of various kinds, but may be reduced to the two following: I. Black or Peat Moss, and II. White or Flow Moss, called in Ireland, Red Moss.

The first, which is composed of the roots and fibres of heath, and other large vegetables, is more solid and tenacious than the White-moss, and in consequence, more improveable. It is generally used as peat for fuel.

The second retains a great quantity of water, is almost a fluid, and, when drained, is of a spongy light substance. In Mosses of this sort, there is a stratum from three to twenty-four inches thick, of a light fungous substance, above the black peat, which, when cut for fuel, is laid aside, being incapable of making peat for burning. This sort of Moss is not so fit for improvement as the first, especially when this stratum is very thick, as it requires a longer time to consolidate, before the lime or other manure can operate upon it, and the first crops are not so certain, though in two years it becomes nearly as good as the other, and is improved to advantage. The Mosses here are, in general, from eight to fourteen feet deep, and the success in reclaiming them has been the same, whatever was their depth.

The first thing to be done, is to cut out proper main or master drains, in order to carry off the superfluous water, taking care to preserve the greatest possible level, which in every case that has yet occurred, has been easily obtained, and which drains can be, and are so constructed, as to divide the field into inclosures from six to ten Scots acres. If the Moss declines, the inclosures may be of any dimension whatever.

The dimensions of these drains, when first made, are eight feet wide at top, by four and a half feet deep, gradually contracting to two and a half feet at bottom, and cost at the rate of one shilling per fall of eighteen and a half feet, running measure. The ridges are then to be marked off regularly, six or

seven yards broad, formed with the spade, in the manner following:

In the center of each ridge, a space of about twenty inches is allowed to remain untouched, on each side of which a furrow is opened, and turned upon the untouched space, so as completely to cover it. Thus begun, the work is continued, by cutting with the spade, in width about twelve inches, and turning it over, to appearance as if done with a plough, until you come to the division-furrow, which should be two feet wide, cut out and thrown upon the sides of the ridges.

The depth of the division-furrow is to be regulated by circumstances, according as the Moss is wet or dry, but so as to answer the purpose of draining or bleeding the Moss, and conducting the water to the main drains.

It may here be observed, that the success of the after-crops depends very much upon a proper formation of the ridges. They must not be made too high in the middle, for there they will be too dry for the lime to act; and near the furrows they will be too wet, which is equally prejudicial; they should therefore be constructed with a gentle declivity towards the furrows, so as the rain which falls may rather filtrate through the ridge to the furrows, than run quickly off the surface.

The operation of digging and forming the ridges has generally been done by contract, and where the surface is tolerably even or equal, it costs one pound thirteen shillings and four pence per Scots acre, or

two pence halfpenny per fall; but where it is in great holes, and wheel-barrows used, it costs from two pounds to two pounds two shillings per acre.

The next operation is to top-dress the ridges with lime, at the rate of from four to eight chaldrons per acre. Five Winchester bushels make a boll, and eight bolls a chaldron, of shell lime, producing sixteen bolls powdered lime, being the ordinary measure of lime in this district (Irish lime excepted, which is only four Winchester bushels); the quicker the lime is put on after being flaked, the better. Coal and lime abound in the neighbourhood, and the prime cost of lime at the kilns, is one shilling and two-pence per boll, shells of five Winchester bushels.

The Mofs is of a considerable extent, and a narrow superficial road has been made through the middle of it, so as to admit single horse carts. A small trench or drain is cut on both sides of the road, and the road covered with gravel, or some hard substance, and seems to stand well. By this road, the lime and dung is carried in single-horse carts, and put upon the ridge from planks, by wheel-barrows. The second year after the main drains have been made, the sides consolidate so as to carry single-horse carts in summer, and the lime and dung is carried by them to the road; and the crops taken off in the same manner.

The proper season to prepare the Mofs for a first crop, is early the preceding Summer; in that case the lime aided by the heat, the after-rains, and the

Winter frosts, makes a considerable progress in the process of putrefaction, consequently forms a mould to receive the seed.

Oats are sometimes sown as a first crop, but they very often misgive the first year, and from what I saw, and was informed, never ought to be done where dung can at any expence be procured. Potatoes planted in what is called the lazy-bed way, ought to be the first crop. The method is simple and attended with little expence. The Mofs prepared by ridges, and limed as before described, the Potatoe-beds next spring are marked off, across the ridges, five or six feet broad, with intermediate spaces of about two feet, as furrows or trenches. The beds are covered over with a thin stratum of dung, about eighteen single-horse carts to an acre, the cuttings of Potatoes are laid or placed upon the beds, about ten or twelve inches asunder, and the whole covered over with a stratum of Mofs, from the intermediate trenches, which is followed by another covering from the trenches, when the Potatoe plants make their first appearance, the covering in whole four or five inches. In this state they remain without any hoeing till the crop is taken up. The produce never less than from forty to fifty bolls of excellent Potatoes, eight Winchester bushels to the boll, and the bushel a little heaped.

When the Potatoe crop is removed, the ridges are again formed as before described, and the division-furrow cleared out, which costs at the rate of 18s. per acre.

In performing this part of the work, it will naturally occur, that a greater part of the manured surface will be buried in filling up the trenches between the lazy-beds; but that is not the case. The workman makes two cuts with the spade, at eighteen inches distance, upon the side of the trench; another, one foot from the edge of it, as deep as the trench; which, instead of turning over, he presses a foot forward into the trench, which is continued the length of it, and when he comes to the other side, he does the same, making both meet, and so proceeds; so that no part of the manured surface is thrown down, and the ridge left in the same form as before the lazy-beds were made.

It may be here remarked, that every operation done upon Moss by the spade, can be executed at the third of the expence, that would be requisite, on any the easiest wrought dry land. Moss is a light substance, sufficiently tenacious, never sticks to the spade, and requires no force to cut it, as it works as easy as a new made cheese would. Any person who has seen Mosses dug for peats as fuel, will be convinced how quick, and with what facility it is done, even by labourers not accustomed to it.

When the Potatoe crop is taken off, and the ridges formed, they remain in that state till Spring, when Oats are sown, (a wet or dry season has from experience been found a matter of indifference) and harrowed in with a small harrow drawn by two men. Four men with ease harrow at least one acre one rood per day, two and two by turns with the harrow,

and the other two in the interim with spades, smoothing the inequalities, breaking and dividing the mould, and clearing out the division-furrows; which last, in all operations upon Moss, is essentially necessary. The early or hot-feed Oats are always preferred for feed. The late or cold-feed runs too much to straw, falls down, and becomes stony, consequently the grain is of mean quality, and unproductive in meal.

EXPENCE OF IMPROVING AN ACRE OF MOSS.

Note.—The acre in this account, is always meant the Scots acre, being nearly one-fifth larger than the English acre.

The average size of the inclosures }
is eight acres; to inclose which by the }
main drains, will require 143 falls, of } £. 0 17 9
eighteen and a half feet each, at 1s. }
per fall in proportion for one acre, }
17½ falls.

Digging and forming the ridges }
with the division-furrows, is from 1l. } 2 2 0
13s, to 2l. 2s.

Brought forward £ 2 19 9

Prime cost lime for
top-dressing one acre, 8
chalders, being 320 bu-
shels of 64 bolls, at 1s.
2d. per boll

The distance here is
from one mile to one
and a half mile, 64 bolls
may at a greater distance
be carried for

Expence of 64 bolls lime - - - - - 4 4 8

Laying on the lime - - - - - 0 8 0

Value of the dung, supposing it bought,
laid down at the side of the field, 3s.
per single horse-cart, 20 carts } 3 0 0

Laying on the dung - - - - - 0 8 0

Trenching lazy-beds for covering the
Potatoes } 0 6 0

Three bolls of Potatoes for seed at 8s. 1 4 0

Taking up the Potatoes and carrying home 1 10 0

Interest of £. 14 0 5d. for two years 1 8 0

Total expence 15 8 5

Produce of Potatoes from 40 to 50 bolls,
say 40 bolls, at 8s. per boll 16 0 0

Gain upon the first crop per acre £ 0 11 7

SECOND YEAR.

Reducing the lazy-beds into ridges	0 18 0
One boll of Oats for seed	0 13 0
Four men harrow one acre per day at 1s. 6d. each	0 6 0
Reaping 6s. — Carrying off 2s. 6d.	0 8 6
Leading and stacking 2s. 6d. — Threshing 5s.	0 7 6
Dressing 1s. — Carrying to market 5s.	0 6 0
	<hr/>
	2 19 0
Interest for one year	0 3 0

Produce of 10 bolls per acre at 13s.	£. 3 2 0
Value of the Straw	£. 6 10 0
	0 15 0
	<hr/>
Gain on the second year	£. 4 3 0

THIRD YEAR.

Digging the ridges	1 6 0
One boll of Oats for seed	0 13 0
Harrowing 6s. — Reaping 6s	0 12 0
Carrying off	0 2 6
Leading and stacking	0 2 6
Threshing 5s. — Dressing 1s.	0 6 0
Carrying to market	0 5 0
Clearing main-drains	0 1 0
	<hr/>
Interest one year	3 8 0
	0 3 4
	<hr/>
Expences third year	£. 3 11 4

Produce 10 bolls Oats, at 13s.	£. 6 10 0
Value of Straw	0 15 0
	<u>£. 7 5 0</u>
Gain third year	£. 3 13 8

FOURTH YEAR.

By this time the Moss is so consolidated as to be ploughed by horses, within two bouts or fitches of the division-furrows, and the crop removed by carts.

Ploughing	0 6 0
Digging two spits, and clearing division-furrows	0 4 0
One boll of Oats for seed	0 13 0
Grass seeds	1 0 0
Harrowing with horses 3s.—Reaping 5s.	0 8 0
Leading off and stacking	0 3 0
Threshing, &c.	0 3 0
Carrying to market	0 4 0
Cleaning main-drains	0 1 6

3 2 6

Interest one year 0 2 8

3 5 2

Produce 6 bolls Oats at 13s.	£. 3 18 0
Value of straw	0 8 0
	<u>4 6 0</u>
Gain fourth year	£. 1 0 10

FIFTH YEAR, HAY.

Cutting 3s.—Winning 3s.	-	0	6	0
Leading & stacking 5s.—Cleaning drains 1s.	0	6	0	

£. 0 12 0

Produce of 200 stone	}	£. 3 6 8	
of Hay at 4d.			
After Grass		0 10 0	3 16 8

Gain the Fifth Year £. 3 4 8

The Moss will now be sufficiently consolidated, and fit for Pasture, and will let, as such, for 1l. 5s. per acre.

RECAPITULATION.

GAIN THE FIRST YEAR	-	0	11	7
SECOND YEAR	-	4	3	0
THIRD YEAR	-	3	13	8
FOURTH YEAR	-	1	0	10
FIFTH YEAR	-	3	4	8

£. 12 13 9

And will let for Pasture at 1l. 5s. per acre.

The reclaiming of Moss upon this plan, bids fair to be of very great consequence, and when it becomes better known, will from experience suffer further improvement. There are many thousands acres of this sort of ground in *Great Britain*; situate in climates where corn thrives well; some in the very best corn countries, where lime, marl, or other calcareous matter can be obtained at a moderate expence; which appears to be what is most essentially necessary in this improvement; and much greater quantities of Moss abound in *Ireland*, none of which produces a penny per acre in its natural state. There is no danger of not obtaining a proper level, for in most large Mosses a river runs through them, and were it otherwise, and that they had no level, they would in time become lakes.

There are no waste lands which can be improved with equal advantage as Moss; none will give so quick, or so large returns, or be so permanent.— Any person possessed of Moss, and who may be desirous to make the experiment, should go himself, or send a man experienced in agriculture, to see the operations carried on at *Swinridgemuir*; and before he begins, endeavour to engage a labourer from that part of the country, who has been experienced in the business, which they perform with great ease and dexterity, and there is no doubt but his own people will soon get into the method. If that cannot be obtained, a labourer may be sent to work there a short time, which will answer the purpose equally well.

So large a quantity of lime as is before mentioned, perhaps is not necessary in this improvement; especially if only three crops of corn were taken before laying into grass. Six chalders, or 240 bushels, shell lime, making 60 bolls of the measure sold at Lord Elgin's works; or 40 bolls of the Linlithgow measure, might be abundantly sufficient for one acre, and would have the same good effect as a larger quantity, especially where Potatoes, with dung are used for a first crop.

The calculations of the price of Seed and Labour as also the price of the produce of the crops, are estimated at the prices in ordinary years.

END.



